

# Prof. SEVDA ZUHAL AKYÜREK

## Personal Information

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## Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1992 - 1998

Postgraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1989 - 1991

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1985 - 1989

## Dissertations

Doctorate, Some Applications of Satellite Remote Sensing to Enviromental Monitoring in turkey, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1998

Postgraduate, SCS Model in Guvenc Basin, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1991

## Research Areas

Surface Water Engineering, Hydrology, Water Resources Planning and Management, Hydraulic Structures

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2013 - Continues

## Academic and Administrative Experience

Assistant Manager of Research and Application Center, Middle East Technical University, Presidency Office, EKOSAM, 2018 - Continues

Anabilim Dalı Akademik Kurul Üyesi, Middle East Technical University, Graduate School of Natural and Applied Sciences, Earth System Science, 2018 - Continues

## Courses

Water Resources Eng., Undergraduate, 2020 - 2021

## Advising Theses

- MERZİ N., AKYÜREK S. Z. , Utilization of numerical weather prediction models for flood planning and operational studies in datascarce basins, Doctorate, O.Çağrı(Student), 2020
- AKYÜREK S. Z. , Estimating net primary productivity of forest ecosystems over Turkey using remote sensing approach, Doctorate, Ö.GÜLBAYAZ(Student), 2018
- AKYÜREK S. Z. , Effects of sediment transport on 1-d and 2-d hydrodynamic modeling and flood inundation, Postgraduate, G.ÖNDER(Student), 2018
- AKYÜREK S. Z. , Soil water content estimation from point scale to plot scale, Postgraduate, G.DEMİR(Student), 2018
- AKYÜREK S. Z. , Assessment of different rainfall products in flood simulations, Doctorate, A.ÖZKAYA(Student), 2017
- AKYÜREK S. Z. , Hierarchical land use and land cover classification of Sentinel2-A images and its use for corine system, Postgraduate, D.ÇAĞDAŞ(Student), 2017
- AKYÜREK S. Z. , 1-D and 2-D flood modeling studies and upstream structural measures for Samsun city Terme district, Postgraduate, B.BOZOĞLU(Student), 2015
- AKYÜREK S. Z. , The use of multimetric framework in calibrating the HBV model, Doctorate, S.SÜRER(Student), 2015
- AKYÜREK S. Z. , The use of simple inertial formulation of the shallow water equations in 2-D flood inundation modeling, Postgraduate, A.NİMAEV(Student), 2015
- AKYÜREK S. Z. , Evaluating geoportals, Postgraduate, E.CON(Student), 2014
- AKYÜREK S. Z. , Atmospheric correction and image classification on MODIS images by nonparametric regression splines, Doctorate, S.KUTER(Student), 2014
- Akyürek S. Z. , Yücel İ., Effects of climate change on water resources in Omerli basin, Doctorate, F.KARA(Student), 2014
- AKYÜREK S. Z. , Analysis and modeling of spatially and temporally varying meteorological parameter: Precipitation over Turkey, Doctorate, P.ASLANTAŞ(Student), 2013
- MERZİ N., AKYÜREK S. Z. , Operation of the water control structures, Postgraduate, O.ÇAĞRI(Student), 2013
- AKYÜREK S. Z. , Regional flood frequency analysis for Ceyhan Basin, Postgraduate, M.Altuğ(Student), 2013
- AKYÜREK S. Z. , OPERATION OF CASCADE DAMS CONSIDERING VARIOUS SCENARIOS AND FINANCIAL ANALYSIS OF SCENARIOS, Postgraduate, B.YALIN(Student), 2013
- AKYÜREK S. Z. , Operation of cascade dams considering various scenarios and financial analysis of scenarios, Postgraduate, B.Yalın(Student), 2013
- AKYÜREK S. Z. , Multi resolution spatial database for mobile applications, Postgraduate, K.İNAL(Student), 2013
- AKYÜREK S. Z. , Regional flood frequency analysis for Ceyhan, Postgraduate, M.ALTUĞ(Student), 2013
- AKYÜREK S. Z. , A segment-based approach to classify agricultural lands using multi-temporal kompsat-2 and envisat asar data, Doctorate, A.Özdarıcı(Student), 2012
- AKYÜREK S. Z. , A segment-based approach to classify agricultural lands using multi-temporal Kompsat-2 and Envisat ASAT data, Doctorate, A.ÖZDARICI(Student), 2012
- AKYÜREK S. Z. , Developing regional flow duration curves and evaluating the performances in the ungauged basins, Postgraduate, Y.KOCATEPE(Student), 2011
- AKYÜREK S. Z. , A fuzzy software prototype for spatial phenomena: Case study precipitation distribution, Doctorate, T.ALP(Student), 2010
- COŞAR A., AKYÜREK S. Z. , Real-time 2D/3D display of DTED maps and evaluation of interpolation algorithms, Postgraduate, A.DEMİR(Student), 2010
- MERZİ N., AKYÜREK S. Z. , Developing a methodology for finding network water losses using information technologies, Postgraduate, H.Onur(Student), 2010
- MERZİ N., AKYÜREK S. Z. , Developing a methodology for finding network water losses using information technologies: A case study, Postgraduate, H.ONUR(Student), 2010
- AKYÜREK S. Z. , Developing a spatial decision support system for telecom wireline infrastructure of Ankara city, Postgraduate, A.Dabanlı(Student), 2010
- AKYÜREK S. Z. , Evaluating the use of satellite-based precipitation estimates for discharge estimation in ungauged basins, Postgraduate, A.SOYTEKİN(Student), 2010
- AKYÜREK S. Z. , TUNCEL S. G. , Development of GIS based trajectory statistical analysis method to identify potential sources of regional air pollution, Postgraduate, R.FİKRET(Student), 2010
- AKYÜREK S. Z. , Context based interoperability to support infrastructure management in municipalities, Doctorate,

E.TUFAN(Student), 2010

AKYÜREK S. Z. , Positional uncertainty analysis using data uncertainty engine-A case study on agricultural land parcels, Postgraduate, İ.URGANCI(Student), 2009

AKYÜREK S. Z. , Classification of forest areas by K Nearest Neighbor Method: Case study, Antalya, Postgraduate, F.ÖZSAKABAŞI(Student), 2008

AKYÜREK S. Z. , Real-time snow cover mapping over mountainous areas of Europe using MSG-SEVIRI imagery, Postgraduate, S.SÜRER(Student), 2008

AKYÜREK S. Z. , A case study in weather pattern searching using a spatial data warehouse model, Postgraduate, Ç.KÖYLÜ(Student), 2008

BEKLİOĞLU M., AKYÜREK S. Z. , Monitoring of water clarity, and submerged and emergent plant coverages in shallow lake wetlands using remote sensing techniques, Postgraduate, Ö.KARABULUT(Student), 2007

AKYÜREK S. Z. , Finding the optimum route for transmission lines within GIS, Postgraduate, T.ÖZTÜRK(Student), 2007

AKYÜREK S. Z. , Hydrological model study in Yuvacik dam basin by using GIS analysis, Postgraduate, F.KESKİN(Student), 2007

AKYÜREK S. Z. , Investigation over a national meteorological fire danger approach for Turkey with geographical information systems, Postgraduate, Y.ÇAĞATAY(Student), 2006

AKYÜREK S. Z. , Investigation over a national meteorological fire danger approach for Turkey with geographic information systems, Postgraduate, Ç.Yamak(Student), 2006

AKYÜREK S. Z. , Developing a gis based methodology for decision making for multiobjective recreational areas, case study eastern black sea region, Postgraduate, Z.GÖZDE(Student), 2006

AKYÜREK S. Z. , A fuzzy based decision support system for locational suitability of settlements; Odunpazarı, Eskişehir case study, Postgraduate, İ.ERCAN(Student), 2006

AKYÜREK S. Z. , Application of sleuth model in Antalya, Postgraduate, Ö.ŞEVİK(Student), 2006

AKYÜREK S. Z. , Developing a GIS based methodology for decision making for multiobjective recreational areas, case study : Eastern Black Sea Region, Postgraduate, Z.Gözde(Student), 2006

AKYÜREK S. Z. , Semi-distributed hydrologic modeling studies in yuvacik basin, Postgraduate, M.KEMAL(Student), 2006

AKYÜREK S. Z. , Use of satellite observed seasonal snow cover in hydrological modeling and snowmelt runoff prediction in upper euphrates basin, Turkey, Doctorate, A.Arda(Student), 2005

AKYÜREK S. Z. , Soil erosion risk mapping using geographic information systems: A case study on Kocadere Creek Watershed, İzmir, Postgraduate, K.OKALP(Student), 2005

BAYKAL N., AKYÜREK S. Z. , A geographic information systems tool development for geostatistical analysis of endangered endemic vascular plants of Turkey, Postgraduate, B.DEMİRCİ(Student), 2005

AKYÜREK S. Z. , Determination of potential favorable zones for pelagic fish aggregation (anchovy) in the Black Sea using RS and GIS, Postgraduate, N.ÇİFTÇİ(Student), 2005

AKYÜREK S. Z. , Determination of potential favorable zones for pelagic fish aggregation (anchovy) in the Black Sea using RS and GIS, Postgraduate, N.Çiftçi(Student), 2005

AKYÜREK S. Z. , Implementing the dijkstra's algorithm with priority queue to the path finding problem in raster GIS, Postgraduate, M.Hakbilir(Student), 2004

AKYÜREK S. Z. , Analysis pattern of Şanlıurfa Harran plain in UML and its implementation in geodatabase, Postgraduate, U.ÇUBUK(Student), 2004

AKYÜREK S. Z. , Implementing the dijkstra's algorithm with priority queue to the path finding problem in raster GIS, Postgraduate, M.HAKBİLİR(Student), 2004

AKYÜREK S. Z. , Assessment of vulnerability to earthquake hazards using spatial multicriteria analysis: Odunpazarı, Eskişehir case study, Postgraduate, M.SERVİ(Student), 2004

AKYÜREK S. Z. , Defining priority areas for nature conservation studies using geographic information systems a case study: Kaçkar mountains and surrounding, Postgraduate, A.Tunca(Student), 2003

AKYÜREK S. Z. , Assessment of social vulnerability using geographic information systems: Pendik, Istanbul case study, Postgraduate, Z.GÜNGÖR(Student), 2003

AKYÜREK S. Z. , The enhancement of the cell-based GIS analyses with fuzzy processing capabilities, Postgraduate, T.ALPA(Student), 2003

AKYÜREK S. Z. , Developing a parcel-based information system by object-oriented approach, Postgraduate,

E.TUFAN(Student), 2003

AKYÜREK S. Z. , A methodology for digital elevation model uncertainty evaluation: Uncertainty propagation in flood inundation modeling, Postgraduate, M.YILMAZ(Student), 2003

AKYÜREK S. Z. , GIS-based spatial model for wildfire simulation: Marmaris-Çetibeli fire, Postgraduate, E.TAŞEL(Student), 2003

AKYÜREK S. Z. , Development of GIS-based national hydrography dataset, Sub-basin boundaries, and water quality/quantity data analysis system for Turkey, Postgraduate, S.GİRĞİN(Student), 2003

AKYÜREK S. Z. , Defining priority areas for nature conservation studies using geographic information systems a case study: Kaçkar mountains and surrounding, Postgraduate, A.TUNCA(Student), 2003

AKYÜREK S. Z. , KÜÇÜKPEHLİVAN T., Developing a parcel-based information system by object-oriented approach, Postgraduate, E.Tufan(Student), 2003

AKYÜREK S. Z. , The Role of real time kinematic global positioning technique in Turkish cadastral activities, Postgraduate, A.İLKER(Student), 2002

AKYÜREK S. Z. , Analysing flood vulnerable areas with multicriteria evaluation., Postgraduate, G.YALÇIN(Student), 2002

AKYÜREK S. Z. , TUNCEL S. G. , Integration of geographic information systems with environmental impact assessment: A case study on Çamlı dam, Postgraduate, E.ESENGİN(Student), 2002

AKYÜREK S. Z. , GPS and DGPS error sources and developing a DGPS post processing software, Postgraduate, M.OCAK(Student), 2001

AKYÜREK S. Z. , Multimedia and internet mapping for METU, Postgraduate, M.ÜSTÜN(Student), 2000

AKYÜREK S. Z. , A Hierarchical classification of landsat TM imagery for land cover mapping, Postgraduate, M.AVCI(Student), 2000

## Jury Memberships

Appointment Academic Staff, Appointment Academic Staff, Orta Doğu Teknik Üniversitesi, January, 2020

Award, Parlar Vakfi Araştırma Teşvik Ödülü, Orta Doğu Teknik Üniversitesi, September, 2019

Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniv., July, 2019

Appointment Academic Staff, Appointment Academic Staff, Middle East Technical University, January, 2019

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, December, 2018

Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, August, 2018

Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, June, 2018

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2018

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A machine learning-based accuracy enhancement on EUMETSAT H-SAF H35 effective snow-covered area product**  
Kuter S., Bolat K., AKYÜREK S. Z.  
Remote Sensing of Environment, vol.272, 2022 (Journal Indexed in SCI)
- II. **Increased Water Abstraction and Climate Change Have Substantial Effect on Morphometry, Salinity, and Biotic Communities in Lakes: Examples from the Semi-Arid Burdur Basin (Turkey)**  
Colak M. A. , Oztas B., ÖZGENCİL İ. K. , Soylyuer M., Korkmaz M., Ramirez-Garcia A., Metin M., Yilmaz G., Ertugrul S., TAVŞANOĞLU Ü. N. , et al.  
WATER, vol.14, no.8, 2022 (Journal Indexed in SCI)
- III. **Decadal changes in size, salinity, waterbirds, and fish in lakes of the Konya Closed Basin, Turkey, associated with climate change and increasing water abstraction for agriculture**  
Yilmaz G., Colak M. A. , Özgencil İ. K. , Metin M., Korkmaz M., Ertugrul S., Soylyuer M., Bucak T., Tavsanoglu U. N. ,

Özkan K., et al.

INLAND WATERS, vol.11, no.4, pp.538-555, 2021 (Journal Indexed in SCI)

- IV. **Quantifying snow water equivalent using terrestrial ground penetrating radar and unmanned aerial vehicle photogrammetry**  
Yildiz S., AKYÜREK S. Z. , Binley A.  
Hydrological Processes, vol.35, no.5, 2021 (Journal Indexed in SCI)
- V. **WRF-Hydro Model Application in a Data-Scarce, Small and Topographically Steep Catchment in Samsun, Turkey**  
Ozkaya A., Akyurek Z.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.45, no.5, pp.3781-3798, 2020 (Journal Indexed in SCI)
- VI. **A multi-technique approach to determine temporal and spatial variability of groundwater-stream water exchange**  
Koruk K., YILMAZ K. K. , Akyurek Z., Binley A.  
HYDROLOGICAL PROCESSES, vol.34, no.11, pp.2612-2627, 2020 (Journal Indexed in SCI)
- VII. **Evaluating the use of bias-corrected radar rainfall data in three flood events in Samsun, Turkey**  
Ozkaya A., Akyurek Z.  
Natural Hazards, vol.98, no.2, pp.643-674, 2019 (Journal Indexed in SCI)
- VIII. **Using cosmic-ray neutron probes in validating satellite soil moisture products and land surface models**  
Duygu M. B. , Akyürek Z.  
Water (Switzerland), vol.11, no.7, 2019 (Journal Indexed in SCI)
- IX. **Retrieval of fractional snow covered area from MODIS data by multivariate adaptive regression splines**  
KUTER S., AKYÜREK S. Z. , Weber G.  
REMOTE SENSING OF ENVIRONMENT, vol.205, pp.236-252, 2018 (Journal Indexed in SCI)
- X. **A new approach to evaluate the MODIS annual NPP product (MOD17A3) using forest field data from Turkey**  
Gulbeyaz O., Bond-Lamberty B., Akyurek Z., West T. O.  
INTERNATIONAL JOURNAL OF REMOTE SENSING, vol.39, no.8, pp.2560-2578, 2018 (Journal Indexed in SCI)
- XI. **A progressive approach for processing satellite data by operational research**  
KUTER S., Weber G., Akyurek Z.  
OPERATIONAL RESEARCH, vol.17, no.2, pp.371-393, 2017 (Journal Indexed in SCI)
- XII. **Climate change impacts on extreme precipitation of water supply area in Istanbul: use of ensemble climate modelling and geo-statistical downscaling**  
Kara F., Yücel İ., Akyurek Z.  
HYDROLOGICAL SCIENCES JOURNAL-JOURNAL DES SCIENCES HYDROLOGIQUES, vol.61, pp.2481-2495, 2016 (Journal Indexed in SCI)
- XIII. **Inversion of top of atmospheric reflectance values by conic multivariate adaptive regression splines**  
KUTER S., Weber G., Akyurek Z., Ozmen A.  
INVERSE PROBLEMS IN SCIENCE AND ENGINEERING, vol.23, no.4, pp.651-669, 2015 (Journal Indexed in SCI)
- XIV. **Object Based Classification of Multi temporal Images for Agricultural Crop Mapping in Karacabey Plain Turkey**  
ÖZDARICI OK A., AKYÜREK S. Z.  
ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, vol.7, pp.127-132, 2014 (Journal Indexed in SCI Expanded)
- XV. **Comparison of regression and kriging techniques for mapping the average annual precipitation of Turkey**  
Bostan P. A. , Heuvelink G. B. M. , AKYÜREK S. Z.  
INTERNATIONAL JOURNAL OF APPLIED EARTH OBSERVATION AND GEOINFORMATION, vol.19, pp.115-126, 2012 (Journal Indexed in SCI)
- XVI. **A segment-based approach to classify agricultural lands by using multi-temporal optical and**

**microwave data**

Ok A. O. , Akyurek Z.

INTERNATIONAL JOURNAL OF REMOTE SENSING, vol.33, no.22, pp.7184-7204, 2012 (Journal Indexed in SCI)

- XVII. **Investigation of the snow-cover dynamics in the Upper Euphrates Basin of Turkey using remotely sensed snow-cover products and hydrometeorological data**  
AKYÜREK S. Z. , Surer S., Beser O.  
HYDROLOGICAL PROCESSES, vol.25, no.23, pp.3637-3648, 2011 (Journal Indexed in SCI)
- XVIII. **Fuzzy model tuning using simulated annealing**  
Yanar T. A. , AKYÜREK S. Z.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.7, pp.8159-8169, 2011 (Journal Indexed in SCI)
- XIX. **Automatic training site selection for agricultural crop classification A case study on Karacabey Plain Turkey**  
ÖZDARICI OK A., AKYÜREK S. Z.  
International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, vol.38, pp.221-226, 2011 (Journal Indexed in SCI Expanded)
- XX. **Evaluating the utility of the ANSA blended snow cover product in the mountains of eastern Turkey**  
AKYÜREK S. Z. , Hall D. K. , Riggs G. A. , ŞENSOY ŞORMAN A.  
INTERNATIONAL JOURNAL OF REMOTE SENSING, vol.31, no.14, pp.3727-3744, 2010 (Journal Indexed in SCI)
- XXI. **Identification and mapping of submerged plants in a shallow lake using quickbird satellite data**  
Dogan O. K. , AKYÜREK S. Z. , BEKLİOĞLU M.  
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.90, no.7, pp.2138-2143, 2009 (Journal Indexed in SCI)
- XXII. **Modelling and forecasting snowmelt runoff process using the HBV model in the eastern part of Turkey**  
ŞORMAN A. A. , ŞENSOY ŞORMAN A., Tekeli A. E. , Sorman A. U. , Akyurek Z.  
HYDROLOGICAL PROCESSES, vol.23, no.7, pp.1031-1040, 2009 (Journal Indexed in SCI)
- XXIII. **Modeling the temporal variation in snow cover area on sub basin scale for simulating forecasting of snowmelt runoff in Turkey**  
TEKELİ A. E. , AKYÜREK S. Z. , ŞENSOY ŞORMAN A., ŞORMAN A. A. , ŞORMAN A. Ü.  
Hydrological Science Journal, vol.50, pp.669-682, 2009 (Journal Indexed in SCI Expanded)
- XXIV. **Commentary on comparison of MODIS snow cover and albedo products with ground observations over the mountainous terrain of Turkey**  
ŞORMAN A. Ü. , AKYÜREK S. Z. , ŞENSOY ŞORMAN A., ŞORMAN A. A. , TEKELİ A. E.  
Hydrology and Earth System Sciences, vol.11, pp.1353-1360, 2007 (Journal Indexed in SCI Expanded)
- XXV. **The enhancement of the cell-based GIS analyses with fuzzy processing capabilities**  
Yanar T., Akyurek Z.  
INFORMATION SCIENCES, vol.176, no.8, pp.1067-1085, 2006 (Journal Indexed in SCI)
- XXVI. **Accuracy assessment of MODIS daily snow albedo retrievals with in situ measurements in Karasu basin, Turkey**  
Tekeli A., Sensoy A., Sorman A., Akyurek Z., Sorman U.  
HYDROLOGICAL PROCESSES, vol.20, no.4, pp.705-721, 2006 (Journal Indexed in SCI)
- XXVII. **Using MODIS snow cover maps in modeling snowmelt runoff process in the eastern part of Turkey**  
Tekeli A., Akyurek Z., Sorman A., Sensoy A., Sorman A.  
REMOTE SENSING OF ENVIRONMENT, vol.97, no.2, pp.216-230, 2005 (Journal Indexed in SCI)
- XXVIII. **Determination of soil hydraulic properties using pedotransfer functions in a semi-arid basin, Turkey**  
TOMBUL M., AKYÜREK S. Z. , ŞORMAN A. Ü.  
HYDROLOGY AND EARTH SYSTEM SCIENCES, vol.8, no.6, pp.1200-1209, 2004 (Journal Indexed in SCI)
- XXIX. **Monitoring the Snow covered Areas from NOAA AVHRR images in the Eastern Part of Turkey**  
AKYÜREK S. Z. , ŞORMAN A. Ü.  
Hydrological Sciences Journal, vol.47, pp.243-252, 2002 (Journal Indexed in SCI Expanded)

## Articles Published in Other Journals

- I. **Salinization Increase due to Climate Change Will Have Substantial Negative Effects on Inland Waters: A Call for Multifaceted Research at the Local and Global Scale**  
Jeppesen E., Özkan K., Akyürek Z., Beklioğlu M.  
The Innovation, vol.1, no.2, 2020 (Journal Indexed in ESCI)
- II. **Special issue on remote sensing of snow and its applications**  
Arslan A. N. , Akyürek Z.  
Geosciences (Switzerland), vol.9, no.6, 2019 (Refereed Journals of Other Institutions)
- III. **Cross-Country Assessment of H-SAF Snow Products by Sentinel-2 Imagery Validated against In-Situ Observations and Webcam Photography**  
Piazzì G., Tanis C. M. , KUTER S., Simsek B., Puca S., Toniazzo A., Takala M., Akyurek Z., Gabellani S., Arslan A. N.  
GEOSCIENCES, vol.9, no.3, 2019 (Journal Indexed in ESCI)
- IV. **Dynamic and context based interoperability to support infrastructure management in municipalities**  
TUFAN E., OĞUZTÜZÜN M. H. S. , AKYÜREK S. Z.  
Journal of the Urban and Regional Information Systems Association, vol.26, no.2, pp.33-49, 2015 (Refereed Journals of Other Institutions)
- V. **Dynamic and context-based GIS interoperability to support infrastructure management in municipalities**  
Emrah T., AKYÜREK S. Z. , OĞUZTÜZÜN M. H. S.  
URISA Journal, vol.26, no.2, pp.33-50, 2015 (Refereed Journals of Other Institutions)

## Books & Book Chapters

- I. **An alternative method for snow cover mapping on satellite images by modern applied mathematics**  
KUTER S., AKYÜREK S. Z. , KUTER N., WEBER G. W.  
in: Modeling, Dynamics, Optimization and Bioeconomics II, Springer Proceedings in Mathematics Statistics, A.A. Pinto and D. Zilberman, Editor, Springer International Publishing, pp.267-292, 2017

## Refereed Congress / Symposium Publications in Proceedings

- I. **Web-based Hydrological Modelling Hidro-ODTU**  
Karaman Ç., Akyürek S. Z.  
EGU 2020 online, Vienna, Austria, 4 - 08 May 2020, pp.1
- II. **Latest Advances in Fractional Snow Cover Mapping on MODIS data by Machine Learning Algorithms**  
Kuter S., Akyürek S. Z.  
EGU 2020, Vienna, Austria, 4 - 08 May 2020, pp.1
- III. **Using the Jupyter Notebook as a Tool for analyzing the EUMETSAT HSAF snow products**  
Akyürek S. Z. , Karaman Ç., Bolat K., Takala M.  
EGU 2020, Vienna, Austria, 4 - 08 May 2020, pp.1
- IV. **KOZMİK IŞIN NÖTRON SENSÖRÜNDEN (CRNP) ELDE EDİLEN TOPRAK NEMİNİN HİDROLOJİK MODELLEMEDE KULLANIMININ DEĞERLENDİRİLMESİ**  
Duygu M. B. , Akyürek S. Z.  
Hidroloji Kongresi X, Muğla, Turkey, 9 - 12 October 2019, vol.1, pp.29-40
- V. **Kozmik Işın Nötron Sensöründen (CRNP) Elde edilen Toprak Neminin Hidrolojik Modellemede Kullanımının Değerlendirilmesi**  
Duygu M. B. , AKYÜREK S. Z.  
10. Hidroloji Kongresi, Turkey, 9 - 12 October 2019
- VI. **Using Cosmic-ray Neutron Probes in validating the Satellite Soil Moisture Products and Land Surface**

## **Models**

Duygu M. B. , Akyürek S. Z.

EGU, Vienna, Austria, 7 - 12 April 2019

- VII. **Estimating Actual Evapotranspiration Using Basin Scale Landsat Images in a Semi-Arid Region of Turkey**  
Yanmaz D., Akyürek S. Z. , Yücel İ.  
EGU, Vienna, Austria, 7 - 12 April 2019
- VIII. **A multi-technique approach to determine temporal and spatial variability of groundwater-stream water exchange**  
Koruk K., Yılmaz K. K. , Akyürek S. Z. , Binley A.  
EGU, Vienna, Austria, 7 - 12 April 2019, vol.21, pp.1080
- IX. **Latest Advances in Fractional Snow Cover Mapping on MODIS data by Machine Learning Algorithms**  
Kuter S., Akyürek S. Z. , Weber W.  
EGU, Vienna, Austria, 7 - 12 April 2019
- X. **HAVZA ÖLÇEĞİNDE TEMSİL EDİCİ ALANSAL ORTALAMA BUHARLAŞMA-TERLEME MİKTARININ LANDSAT GÖRÜNTÜLERİNDEN ELDE EDİLMESİ**  
Yanmaz D., Akyürek S. Z. , Yücel İ.  
VII. UZAKTAN ALGILAMA CBS SEMPOZYUMU, Eskişehir, Turkey, 18 - 21 September 2018, pp.580-589
- XI. **Sentinel-2A Çok Spektral Görüntülerden İkili Kar Örtüsü Haritalaması İçin il Doğrulama Sonuçları**  
Akyürek S. Z. , Kunter S.  
UZALCBS 2018, Eskişehir, Turkey, 18 - 21 September 2018, pp.481-489
- XII. **1/25 000 Ölçekli Standart Topoğrafik Haritalardan Elde Edilen Sayısal Yükseklik Modellerinin Doğruluk Analizi**  
Akyürek S. Z. , Yıldız S., Aydın A.  
UZALCBS, Eskişehir, Turkey, 18 - 21 September 2018, pp.783-792
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## Activities in Scientific Journals

Geosciences, Editor, 2018 - 2018

## Scientific Refereeing

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Journal Of Hydrologic Engineering, SCI Journal, April 2019

ADVANCES IN SPACE RESEARCH, SCI Journal, April 2019

TEKNIK DERGI, National Scientific Refreed Journal, December 2018

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, November 2018

MATHEMATICAL PROBLEMS IN ENGINEERING, Journal Indexed in SCI-E, October 2018

NATURAL HAZARDS, SCI Journal, May 2018

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JOURNAL OF HYDROLOGIC ENGINEERING, Journal Indexed in SCI-E, February 2018

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Advances In Space Research, Journal Indexed in SCI-E, February 2018

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## **Scientific Consultations**

TUBITAK, Project Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2018 - 2019

## **Tasks In Event Organizations**

Akyürek S. Z. , Avrupa-Uzun Dönemli Ekolojik Araştırma Ağı (e-LTER) ile Türkiye- Uzun Dönemli Ekolojik Araştırma Ağı (tr-LTER) Oluşturma Çalıştayı ve "Kavramsal Hidrolojik Model ile Hidrolojik Döngü Parametrelerinin Elde Edilmesi" TUBITAK 115Y041 Projesi Sonuçları Paylaşım ve Değerlendirme Toplantısı, Workshop Organization, Ankara, Turkey, Haziran 2019

## **Scientific Research / Working Group Memberships**

Tujjb -Tuhk, Middle East Technical University, Turkey, <http://www.tujjb.org.tr/s-2-tuhk.html>, 2005 - Continues

## **Edit Congress and Symposium Activities**

HSAF PProject Meeting, Working Group, Reading, United Kingdom, 2018

EGU, Working Group, Vienna, Austria, 2018

## **Citations**

Total Citations (WOS):624

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## **Entrepreneurship Activities**

Limited, Hidrosaf YAZ. Bil.Dan. Ltd. ŞTi., 19 September 2014, Owner

## **Non Academic Experience**

Technology Development Zone, ODTU Teknokent, Hidrosaf Ltd.Sti.